FIG. 1

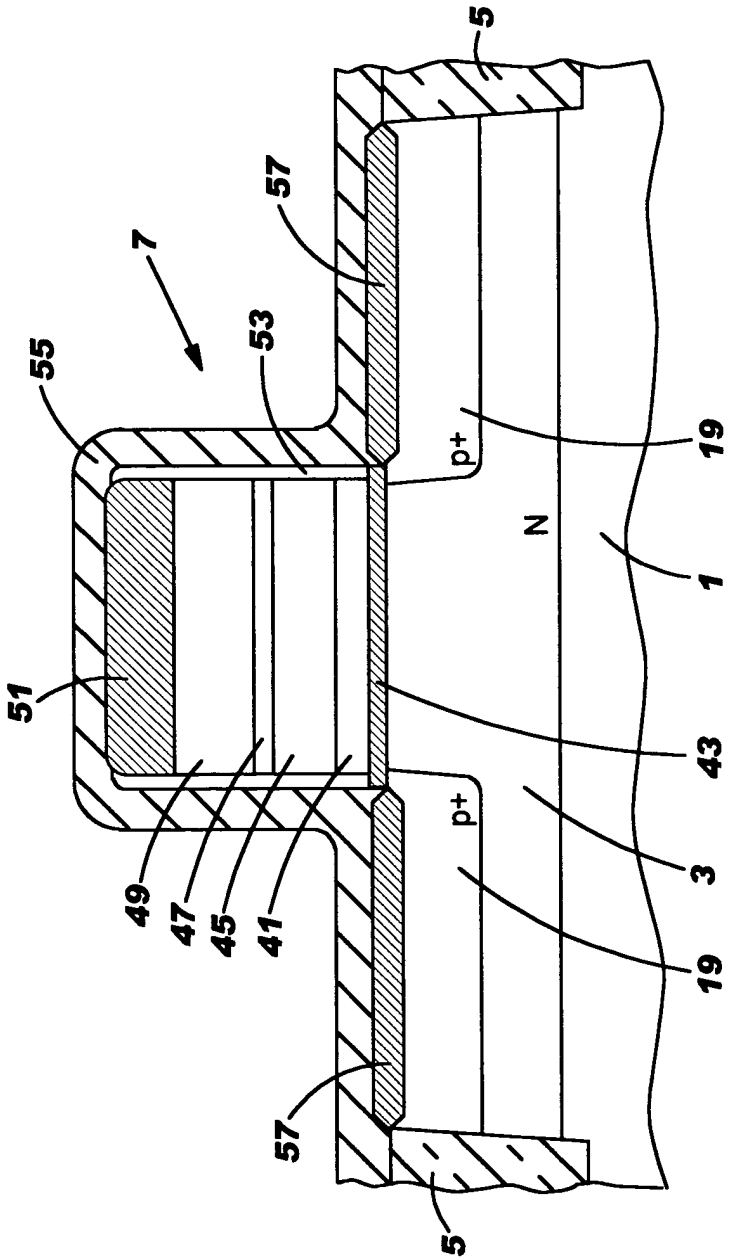


FIG. 2A

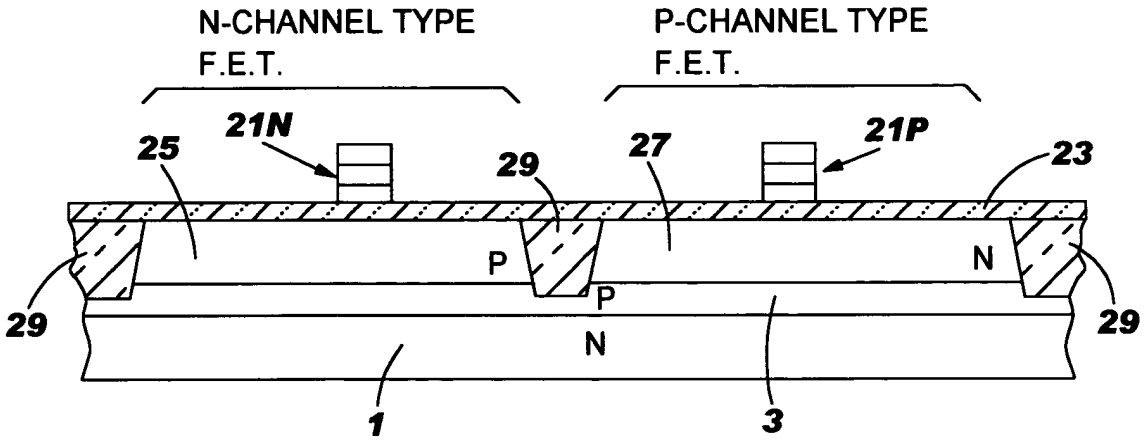


FIG. 2B

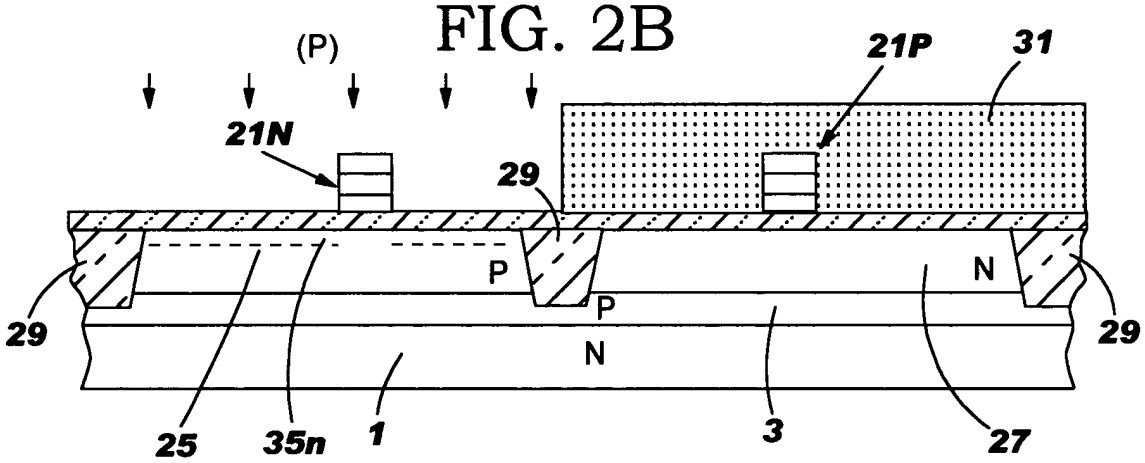


FIG. 2C

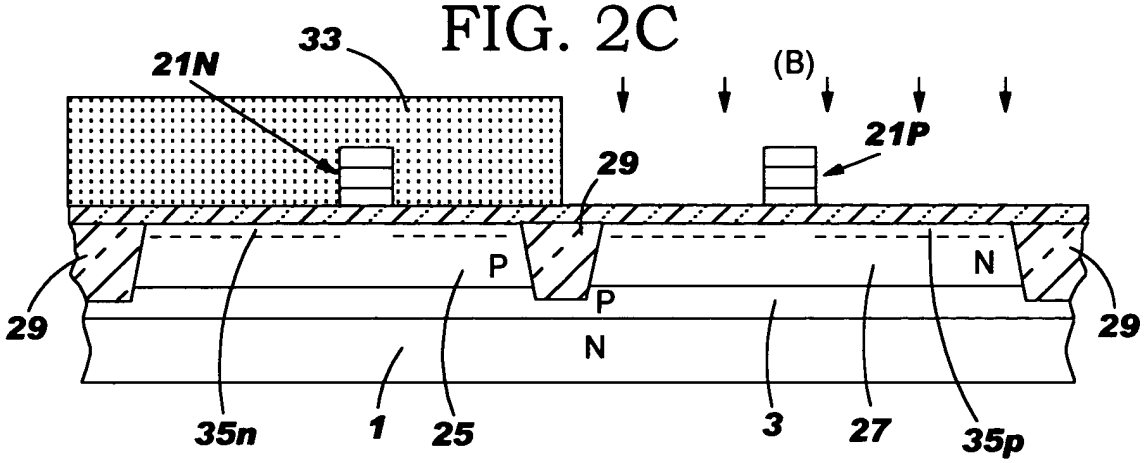


FIG. 2D

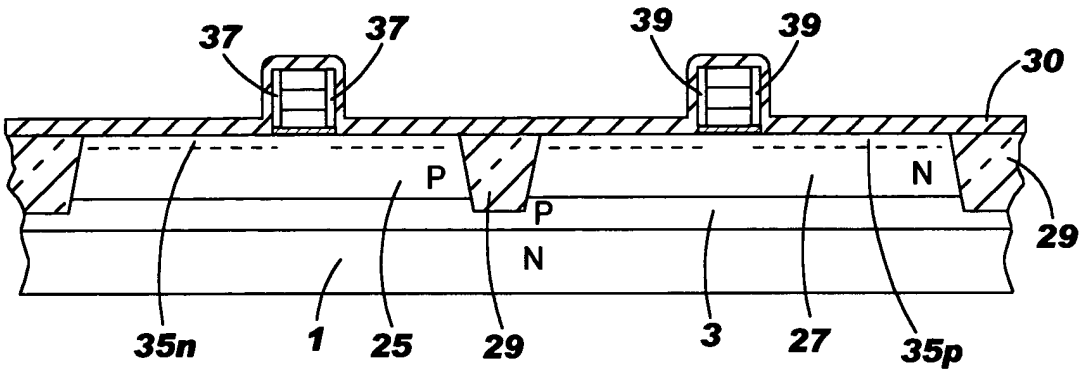
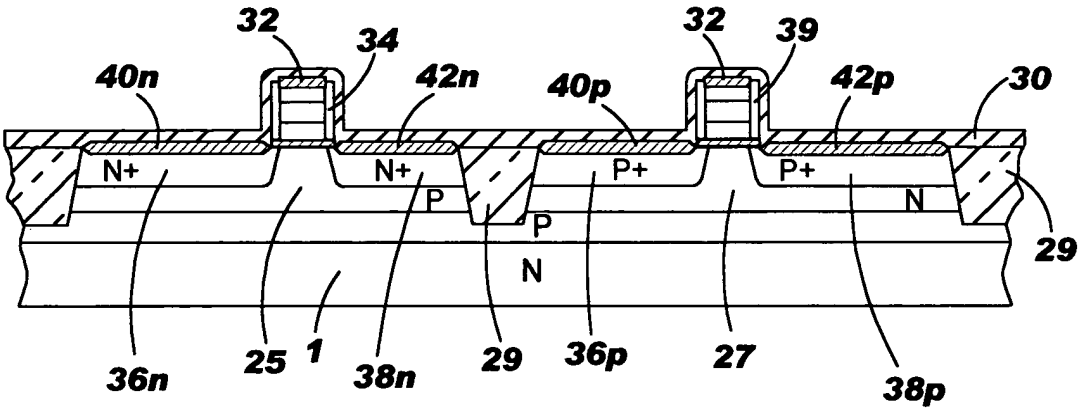

37
37
39
39
30
P
P
N
N
29
35n
1
25
29
3
27
35p

FIG. 2E


32
34
32
39
40n
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40p
42p
30
N+
N+
P+
P+
P
P
N
N
29
36n
25
1
38n
29
36p
27
38p

FIG. 3A

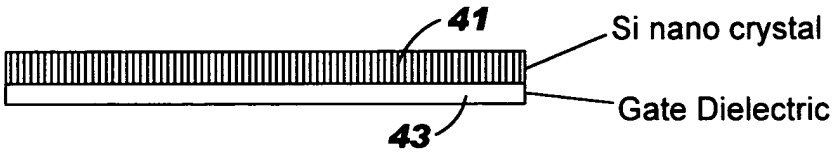


FIG. 3B

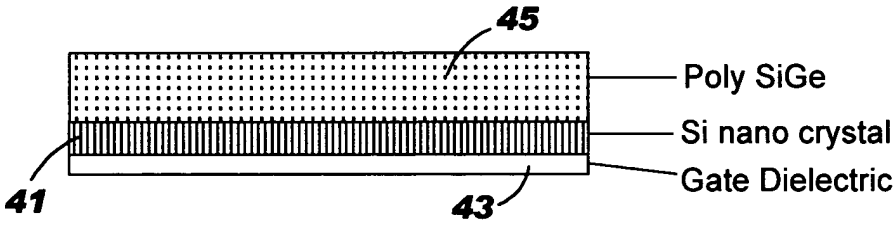


FIG. 3C

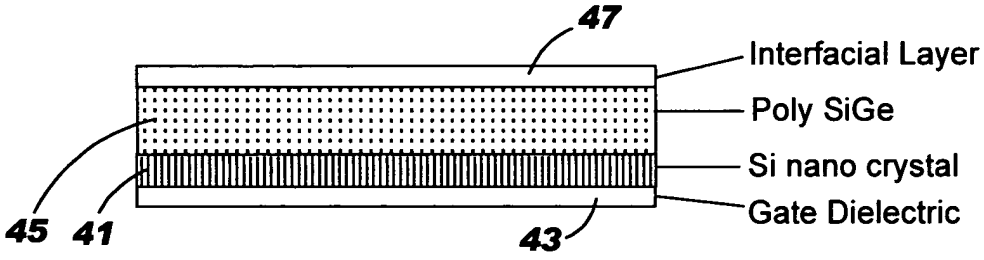


FIG. 3D

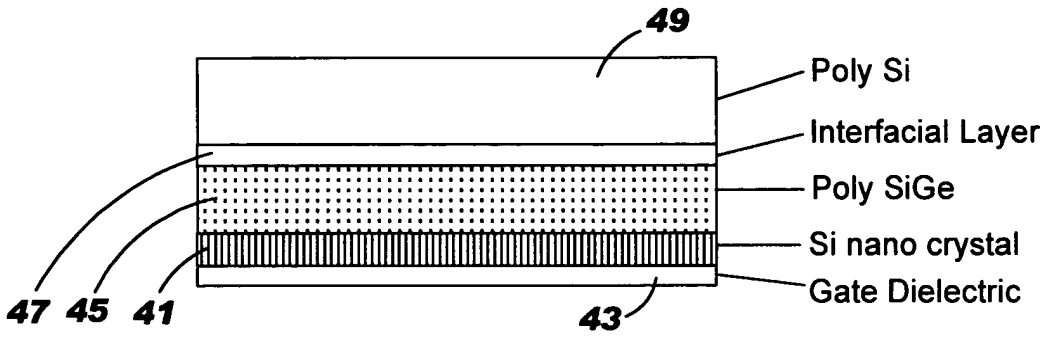
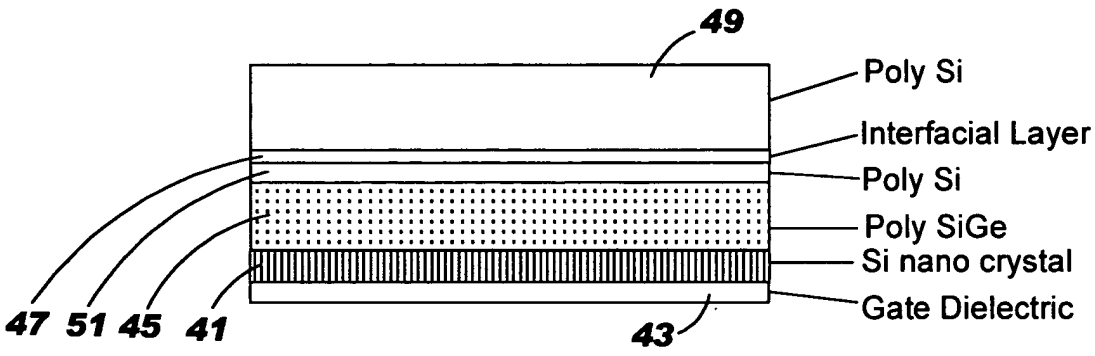

49
Poly Si
Interfacial Layer
Poly SiGe
Si nano crystal
Gate Dielectric
47
45
41
43

FIG. 3E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Interfacial Layer
Poly Si
Poly SiGe
Si nano crystal
Gate Dielectric
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51
45
41
43
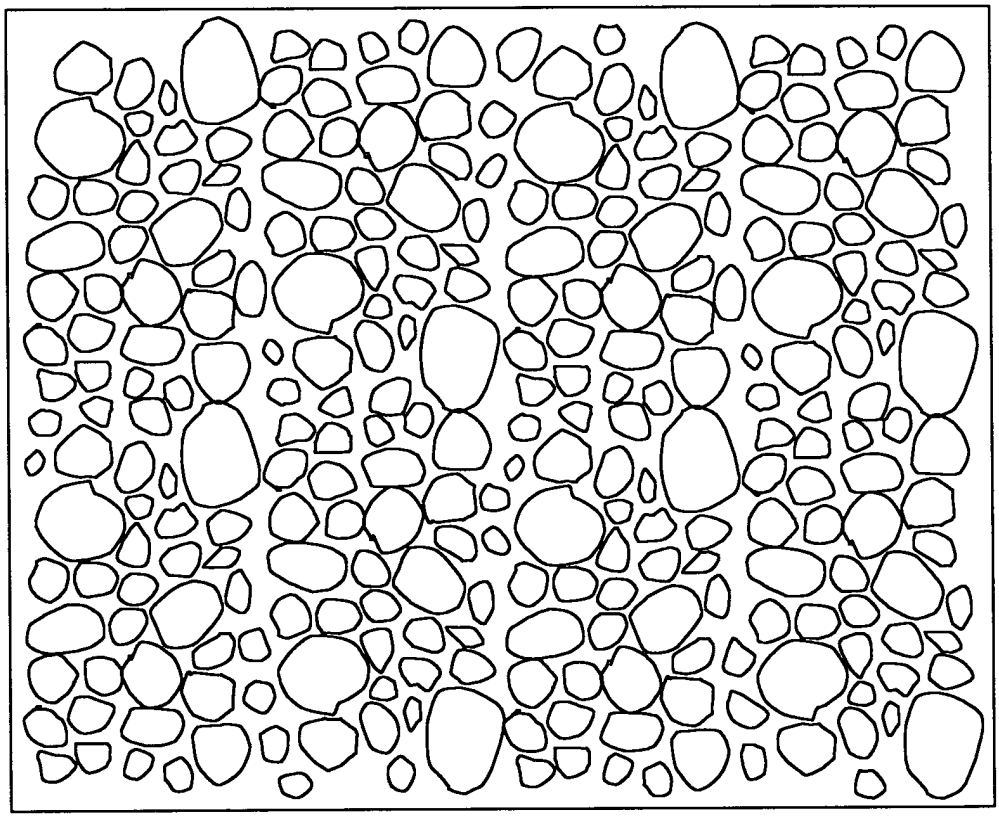
FIG. 4